

# Daily Space Weather Summary (SUPARCO)

Tuesday, June 25, 2024, 13:36 PST



## LOCAL CURRENT IONOSPHERIC CONDITIONS (SON)

<b>Critical Frequency of F2 layer (foF2)</b>	8.2 MHz							
<b>Virtual Height of F2 layer (h`F2)</b>	254 km							
<b>Total Electron Content (TEC)</b>	60 TECU							
<b>Maximum Usable Frequency (MUF) and Optimum Traffic Frequency (FOT) for various distances</b>								
<b>Distance (Km)</b>	<b>100</b>	<b>200</b>	<b>400</b>	<b>600</b>	<b>800</b>	<b>1000</b>	<b>1500</b>	<b>3000</b>
<b>MUF (MHz)</b>	8.4	8.7	9.8	11.4	13.2	14.8	18.4	22.4
<b>FOT (MHz)</b>	7.1	7.4	8.3	9.7	11.2	12.6	15.6	19.0

Local HF conditions are normal as compared to the predicted monthly median MUF.

## LOCAL GEOMAGNETIC CONDITIONS

<b>K-index</b>	0 (Quiet)
<b>Total Field (F) (Son/Isb)</b>	45675/50775 nT

The local geomagnetic field is quiet at the moment.

## LATEST SOLAR CONDITIONS

<b>Sunspot Number (SN)</b>	141
<b>Solar radio flux (F10.7)</b>	199 sfu
<b>Solar wind speed</b>	321.8 km/s (varied in the past 24 hrs between 268 & 341 km/s)
<b>Solar x-ray flares</b>	C3.7 (max flare in the past 24 hrs (M4, 1411 UT)
<b>Interplanetary Magnetic Field (IMF) Total Field (Bt) Z Component of Field (Bz)</b>	+7.3 nT (varied in the past 12 hrs between +4.2 nT & +6.4 nT) -4.5 nT (varied in the past 12 hrs between -4.5 nT & +3.3 nT)

Solar conditions are at low to moderate levels with background X-ray flux at C-class level.

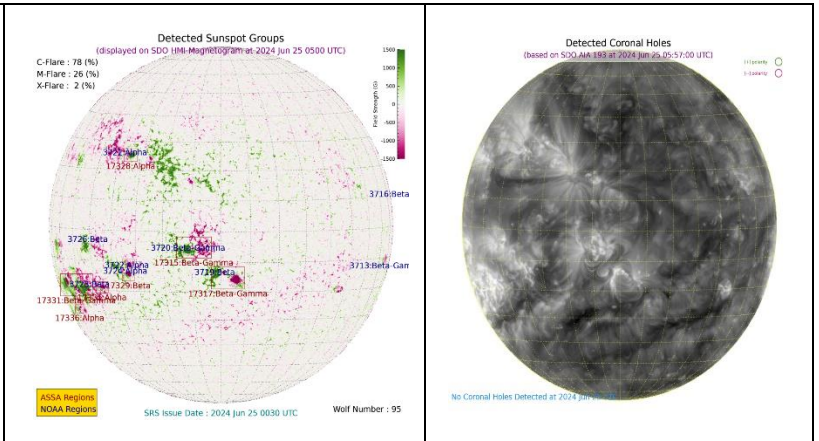
Sonmiani (SON): 25.2° N, 66.75° E, Islamabad (ISB): 33.7° N, 73.13° E

Notes: Credits: [www.spaceweather.go.kr](http://www.spaceweather.go.kr), [www.sws.bom.gov.au](http://www.sws.bom.gov.au), [www.spaceweather.com](http://www.spaceweather.com), [www.solen.info](http://www.solen.info)

## Daily Sun: 25 June 2024

There are two active regions AR3713 and AR3720 present on the Sun capable of producing strong M and X-class solar flares having chances of 26% and 2% respectively.

No Coronal Hole (CH) is detected on the solar disk.



### DISCUSSION:

Solar activity is expected to be at low to moderate levels. Multiple M-class solar flares, have already occurred from the region mentioned above. In case of more M/X-class solar flares, minor to moderate radio blackouts may be observed. Low solar wind speed and quiet geomagnetic activity is expected to prevail. HF conditions are normal.